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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,111	11/16/2001	Arnab Das	15-19-15-2	3440
30594	7590	03/02/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			AGHDAM, FRESHTEH N	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/991,111	DAS ET AL.	
	Examiner	Art Unit	
	Freshteh N. Aghdam	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 5, filed 12/27/2005, with respect to the rejection(s) of claim(s) 1-14 under Kim et al (US 6,438,119), and further in view of Lee et al (US 6,621,873) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kim et al (US 6,438,119), Rezaiifar et al (US 6,526,030), and Lee et al (US 6,621,873).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al (US 6,438,119), and further in view of Rezaiifar et al (US 6,526,030).

As to claims 1 and 13-14, Kim teaches separately decoding a portion of the encoded signaling information (Fig. 5-9); and deriving transmission format information from the separately decoded portion of the encoded signaling information for the corresponding data transmission before a remainder of the encoded signaling information is decoded (Fig. 5-9; Col. 6, lines 46- Col. 7, line 19; Col. 15, lines 58- Col. 16, lines 2; table 4). Kim

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is silent about using a shared control channel for transmitting for processing control information. Rezaiifar teaches using a shared control channel for transmitting for processing control information (Col. 8, Lines 32-53). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Kim with Rezaiifar in order to increase the capacity of the forward link (Col. 8, Lines 32-34).

As to claim 3, Kim teaches a dedicated control channel (column 1, lines 47-52; column 5, lines 9-18) used by a plurality of mobile stations for communicating with a base station (column 5, lines 9-18). The control channel is used to send signaling information (column 1 line 47; column 2, line 24; column 13, lines 51-64; column 15, line 67; column 16, lines 1-28).

As to claim 4, Kim teaches a method for processing control information, wherein the control information, or signaling information, includes: transport format and resource-related information about the frame length of the data transmitted (column 2, lines 14-25; column 7, lines 21 -49); and cyclic redundancy check information (column 2, lines 26-34; column 7, lines 21-33).

As to claim 5, Kim teaches a method for processing control information, wherein the control information includes transport format and resource-related information, which includes transmission format information, Kim teaches the transmission format information in the form of frame length of the data transmitted (column 2, lines 14-25., column 7, lines 21-49); allocated rate of the data transmitted; allocated duration of the data transmitted; message identifier, direction, and type; and channel use starting time (column 9, lines 33-68; table 3).

As to claim 6, Kim teaches a method for processing control information, wherein the control information includes transmission format information, which includes: code and modulation information in the form of type of code used: Walsh code, quasi-orthogonal code, Bi-phase Shift Keying, or Quadrature Phase Shift Keying (column 13, lines 3-23); transport block set size information in the form of frame length of the data transmitted (column 2, lines 14-25; column 7, lines 21-49); and transport channel identification information in the form of pilot channel information for estimating the channel gain and phase and for performing acquisition and handoff (column 5, lines 49-64); and channel identifier and a channel parameter (column 7, lines 1-10); and channel use starting time (column 9, lines 33-68; table 3).

As to claim 7, Kim teaches transmission format information is separately decoded from the portion of the encoded signaling information (column 6, line 46-; column 7, line 19; column 15, lines 58- column 16, lines 28; figures 1-2; table 4; figures 1-2).

As to claim 8, Kim teaches convolutionally coding signaling information, and adding tail bits to the encoded signaling information (column 12, lines 13-37).

As to claim 9, Kim teaches convolutionally coding signaling information, and selectively adding tail bits to the encoded signaling information (column 12, lines 13-37).

As to claim 10, Kim teaches convolutionally coding signaling information and puncturing selected bits from the encoded signaling information (column 12, line 65- column 13, line 19).

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim and Rezaiifar, further in view of Lee et al (US 6,621,873).

As to claims 11 and 12, Kim and Rezaiifar teach all the subject matters claimed above, except for the puncturing of bits from the portion of the encoded signaling information that is separately decoded is less than the puncturing of bits from the remaining encoded signaling information. Lee teaches puncturing of bits from the portion of the encoded signaling information that is separately decoded is less than the puncturing of bits from the remaining encoded signaling information (column 6, lines 7-43; figures 3-5) since Lee disclosed that the first portion of the frame is punctured and the second portion of the frame is not punctured. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Lee with Kim in order to minimize or avoid puncturing of tail symbols according to the code rate, thereby increasing the decoding capability of the receiver (column 6, lines 32-37).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.

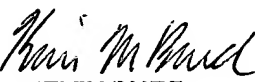
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Freshteh Aghdam
February 26, 2006


KEVIN BURD
PRIMARY EXAMINER